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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,943

09/28/2005

Werner Jacob

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EXAMINER

DELISLE, ROBERTA S

ART UNIT

PAPER NUMBER

3677

MAIL DATE

DELIVERY MODE

04/09/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,943	<b>Applicant(s)</b> JACOB, WERNER	
	<b>Examiner</b> ROBERTA DELISLE	<b>Art Unit</b> 3677	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 7-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/28/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 2/21/09 have been considered but are moot in view of the new ground(s) of rejection.

2. **Claims Status:**

- |    |                       |                      |
|----|-----------------------|----------------------|
| a. | Claims 1 & 10         | Currently Amended    |
| b. | Claims 2-4, 7-9, & 11 | Previously Presented |
| c. | Claims 5-6            | Cancelled            |
| d. | Claims 12-14          | New                  |

3. **Prior Art References:**

- e. Corsmeier et al. US 4,934,888

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 & 7-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Corsmeier et al. (US 4,934,888).

**Regarding Claim 1, Corsmeier discloses:  
Reference figures 1-5, for example**

**(Currently Amended)** A locking ring (**Abstract**) for axially fixing a shaft part (**24**) in a ring part (**18**), the shaft part (**24**) having a peripheral groove (**28**) and the ring part (**18**) having an inner groove (**38**), in which

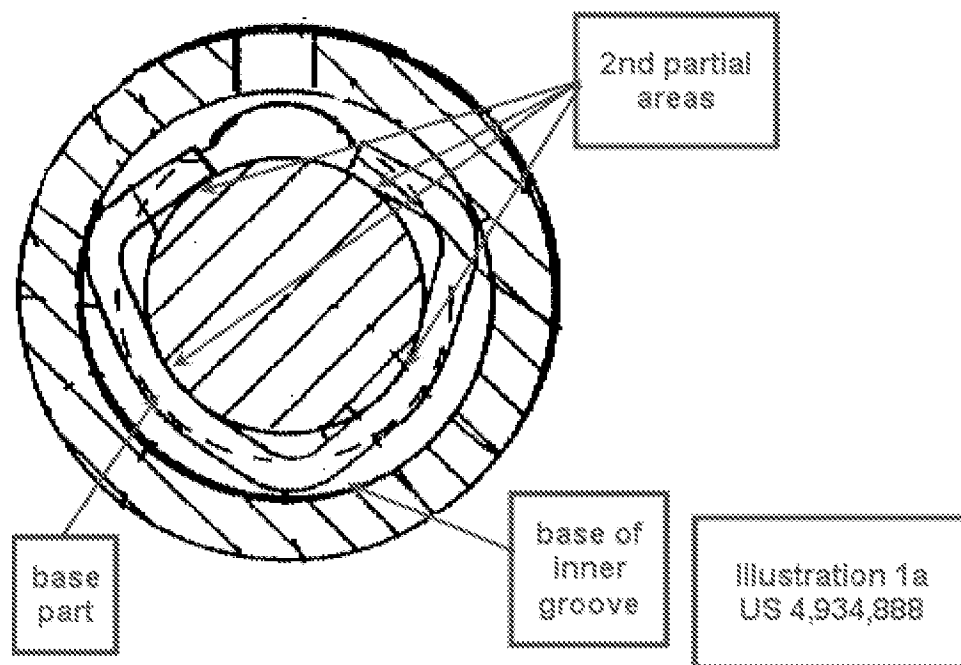
Art Unit: 3677

the locking ring (20) ~~[[.]] which has an opening in a circumferential direction[[.]]~~ engages in a fixed state, the locking ring (20) comprising

an opening (50) in a circumferential direction, with first partial areas (44a-c), configure to engage in the inner groove (38) upon resiliently pressing together the locking ring (20), so that the locking ring (20) is placeable in the inner groove (38) of the ring part (18), and pushing the locking ring (20) into the inner groove (38) and releasing and expanding the locking ring (20) (Column 5 Lines 4-22) and

second partial areas (19, See Illustration 1a below), configured to project from the inner groove (38) once the locking ring (20) has been placed therein and resiliently push outward in a section of the shaft part (24) which has been pushed into an inner opening (38) of the ring part (18) so that the locking ring (20) can slide on a periphery of the shaft part (24) until the locking ring (20) reaches the peripheral groove (28) and the second partial areas (19, See Illustration 1a below) resiliently snap into said peripheral groove (28) (Column 5 Lines 4-22),

the locking ring (20) being configured as a polygon (figures 4 & 5) that includes side parts (21) and corner areas (44a-c), the first partial areas (44a-c) including the corner areas (44a-c) and opposed free end areas (46, 48) that adjoin the locking ring (20) opening (50), and the second partial areas (19, See Illustration 1a below) including middle areas (19) of the side parts (21) of the polygon (figures 4 & 5), with the opening (50) in the locking ring (20) being disposed between the opposed free end areas (46, 48).



**Regarding Claim 2, Corsmeier further discloses:**

**(Previously Presented)** The locking ring pursuant to claim 1, wherein the first **(44a-c)** and the second **(19, See Illustration 1a in Claim 1)** partial areas are each distributed evenly over at least one of the periphery of the inner groove **(38)** and the peripheral groove **(28)**

**Regarding Claim 3, Corsmeier further discloses:**

**(Previously Presented)** The locking ring pursuant to claim 1, wherein the polygon is a triangle **(figures 4 & 5)** configured as a base part **(See Illustration 1a in Claim 1)** and two of the side parts **(21)** connected to the base part **(See Illustration 1a in Claim 1)**, the first partial areas **(44a-c)** including two of the corner areas **(44a-c)** between the base part **(See Illustration 1a in Claim 1)** and the side parts **(21)** and the free end areas **(46, 48)** of the side parts **(21)** of the triangle, and the second partial areas **(19, See Illustration 1a in Claim 1)** including the middle areas **(19)** of the base part **(See Illustration 1a in Claim 1)** and the side parts **(21)**

**Regarding Claim 4, Corsmeier further discloses:**

**(Previously Presented)** The locking ring pursuant to claim 3, wherein the triangle **(figures 4 & 5)** is an equilateral triangle

**Examiner notes that Corsmeier discloses a triangularly shaped ring but does not specifically state that it is an equilateral triangle. However, those of ordinary skill in the art would appreciate that a modification such as a mere change in shape of a prior art device is a design consideration within the skill of the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)**

**Regarding Claim 7, Corsmeier further discloses:**

**(Previously Presented)** The locking ring pursuant to claim 1, wherein the corner areas **(44a-c)** are rounded in shape **(figures 4 & 5)**

**Regarding Claim 8, Corsmeier further discloses:**

Art Unit: 3677

**(Previously Presented)** The locking ring pursuant to claim 7, wherein the rounding of the corner areas (44a-c) is adjusted to a radius of a base (**See Illustration 1a in Claim 1**) of the inner groove (38)

**Regarding Claim 9, Corsmeier further discloses:**

**(Previously Presented)** The locking ring pursuant to claim 1, wherein a cross section of the locking ring (20) is circular, oval, rectangular, quadratic, or polygonal shape (**figures 4 & 5**).

**Regarding Claim 10, Corsmeier further discloses:**

**(Currently Amended)** A locking ring (20) for axially securing an inserted shaft (24) having a peripheral groove (28) to an annular ring (18) having an inner groove (38), the locking ring (20) comprising: a plurality of first partial areas (44a-c) configured to engage the inner groove (38) of the annular ring (18), the locking ring (20) being resiliently deformable such that upon being resiliently pressed together, pushed into the inner groove (38), and released so as to expand, the locking ring (20) is placeable in the inner groove (38) (**Column 5 Lines 4-22**); and a plurality of second partial areas (19, **See Illustration 1a in Claim 1**) configured to project from the inner groove (38) once the locking ring (20) has been placed therein, to resiliently extend toward the inserted shaft (24) such that the locking ring (20) is slidable on a periphery of the shaft (24) until the locking ring (20) is located at the peripheral groove (28), and to resiliently snap into the peripheral groove (28) to secure the shaft (24) to the annular ring (18) (**Column 5 Lines 4-22**), the locking ring (20) being configured as a polygon (**figures 4 & 5**) that includes side parts (21), corner areas (44a-c), and opposed ends (46, 48) at an opening (50) therein, the first partial areas (44a-c) including the corner areas (44a-c) and the opposed ends (46, 48), and the second partial areas (19, **See Illustration 1a in Claim 1**) including middle areas (19) of the side parts (21), **with the opening (50) being located at a periphery of the locking ring (20) and being disposed between the opposed free ends (46, 48) of the locking ring (20).**

**Regarding Claim 11, Corsmeier further discloses:**

**(Previously Presented)** The locking ring according to claim 10, wherein the polygon is a triangle (**figures 4 & 5**)

**Regarding Claim 12, Corsmeier further discloses:**

Art Unit: 3677

**(New)** The locking ring according to claim I, wherein the opening **(50)** between the opposed free end areas **(46, 48)** is located at a periphery of the locking ring **(20)**

**Regarding Claim 13, Corsmeier further discloses:**

**(New)** An assembly for axially securing an inserted shaft having a peripheral groove **(Abstract)**, the assembly comprising:

an annular ring **(18)** having an inner groove **(38)** therein; and  
a locking ring **(20)** having

(i) a plurality of first partial areas **(44a-c)** configured to engage the inner groove **(38)** of the annular ring **(18)**, the locking ring **(20)** being resiliently deformable such that upon being resiliently pressed together, pushed into the inner groove **(38)**, and released so as to expand, the locking ring **(20)** is placeable in the inner groove **(38)** **(Column 5 Lines 4-22)**, and

(ii) a plurality of second partial areas **(19, See Illustration 1a in Claim 1)** configured to project from the inner groove **(38)** once the locking ring **(20)** has been placed therein, to resiliently extend toward the inserted shaft **(24)** such that the locking ring **(20)** is slidable on a periphery of the shaft **(24)** until the locking ring **(20)** is located at the peripheral groove **(28)**, and to resiliently snap into the peripheral groove **(28)** to secure the shaft to the annular ring **(18)** **(Column 5 Lines 4-22)**,

the locking ring **(20)** being configured as a polygon **(figures 4 & 5)** that includes side parts **(21)**, corner areas **(44a-c)**, and opposed ends **(46, 48)** at an opening **(50)** therein, the first partial areas **(44a-c)** including the corner areas **(44a-c)** and the opposed ends **(46, 48)**, and the second partial areas **(19, See Illustration 1a in Claim 1)** including middle areas **(19)** of the side parts **(21)**.

**Regarding Claim 14, Corsmeier further discloses:**

**(New)** The assembly according to claim 13, wherein the corner areas **(44a-c)** of the locking ring **(20)** are rounded in shape **(figures 4 & 5)**, and a cross section of the locking ring **(20)** is circular, oval, or polygonal in shape **(figures 4 & 5)**.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERTA DELISLE ("Bobbi") whose telephone number is (571) 270-3746. The examiner can normally be reached on M-F 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor D. Batson can be reached on (571) 272- 6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor Batson/  
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Supervisory Patent Examiner  
Art Unit 3677

rsd



Application/Control Number: 10/550,943  
Art Unit: 3677

Page 8